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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,057	09/05/2003	Ronald E. Steele	RD8350/SNA	9391
43693 7590 06/16/2011 INVISTA NORTH AMERICA S.A.R.L. THREE LITTLE FALLS CENTRE/1052 2801 CENTERVILLE ROAD WILMINGTON, DE 19808			EXAMINER BUTLER, PATRICK NEAL	
			ART UNIT	PAPER NUMBER
			1742	
			NOTIFICATION DATE	DELIVERY MODE
			06/16/2011	ELECTRONIC

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* RONALD E. STEELE

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Appeal 2010-004247  
Application 10/656057  
Technology Center 1700

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Before TERRY J. OWENS, PETER F. KRATZ and  
CATHERINE Q. TIMM, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

The Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-5 and 7. Claim 6, which is the only other pending claim, stands withdrawn from consideration by the Examiner. We have jurisdiction under 35 U.S.C. § 6(b).

*The Invention*

The Appellant claims a process for making a polyamide filament.  
Claim 1 is illustrative:

1. A process for making a synthetic melt spun polyamide filament comprising the steps of:  
supplying polyamide polymer with an RV of 36 to 38 to a solid phase polycondensation apparatus;  
humidifying a purge gas with water vapor;  
supplying said purge gas to the solid phase polycondensation apparatus at a flow rate in the range of about 2 to about 3 kg/hour per kg of polymer per hour;  
treating the polyamide polymer in the solid phase polycondensation apparatus with the purge gas at a solid phase polycondensation system pressure of about 110 to about 120 kPascal;  
conveying the treated polyamide polymer to a melt extrusion apparatus;  
melting the polyamide polymer in the melt extrusion apparatus;  
extruding the melted polyamide polymer through a spinneret plate;  
and forming at least one continuous filament of polyamide polymer with a yarn RV of about 51 to about 54.

#### *The References*

Eberius	4,034,034	Jul. 5, 1977
Schwinn	6,235,390	May 22, 2001

Fourné, *Synthetic Fibers* 359 (1999).

#### *The Rejections*

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1-3, 5 and 7 over Schwinn,<sup>1</sup> and claim 4 over Schwinn in view of either Eberius or Fourné.

#### OPINION

We reverse the rejections. We need to address only the independent claims, i.e., claims 1 and 7.<sup>2</sup>

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<sup>1</sup> The Examiner's Answer incorrectly states that withdrawn claim 6, rather than claim 7, is rejected (Ans. 3).

*Issue*

Has the Appellant indicated reversible error in the Examiner's determination that Schwinn would have rendered prima facie obvious, to one of ordinary skill in the art, a process which makes a filament having a yarn RV of about 51 to about 54?

*Findings of Fact*

Schwinn discloses a solid phase polymerization process which forms filaments having a relative viscosity (RV) of at least about 140 from polymer flakes having an RV of about 40 to about 60 (col. 5, l. 61; col. 6, ll. 61-64; col. 7, l. 30). Gas exiting a solid phase polymerization vessel (16) can have a dew point temperature above 30 °C and, therefore, need drying (col. 9, ll. 2-5). Up to 100%, most preferably about 70-90%, of the circulating gas is passed through a drying system (14) such that the inlet gas to the solid phase polymerization vessel (16) has a dew point temperature no higher than about 20 °C, most preferably about 5-20°C (col. 8, l. 58 – col. 9, l. 2).

*Analysis*

The Appellant argues that Schwinn “fails to teach the formation of a continuous filament of polyamide polymer with a yarn RV of about 51 to 54” (Br. 4).

The Examiner argues that between Schwinn's gas inlet (24) and gas outlet (26) the circulating gas is humidified, and that because Schwinn meets all the component and process limitations of the Appellant's independent

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<sup>2</sup> The Examiner does not rely upon Eberius or Fourné for any disclosure which remedies the deficiency in Schwinn as to the independent claims (Ans. 6-8).

claims, including the requirement of “humidifying a purge gas with water vapor” (claim 1) and “treating a nitrogen comprising purge gas with water vapor” (claim 7), the filaments produced by the process necessarily have the same RV as the Appellant’s filaments, i.e., about 51 to about 54 (Ans. 5-6, 9-10).

The Examiner’s argument is not well taken because, first, Schwinn teaches that the filament RV is at least about 140 (col. 5, l. 61), not about 51 to about 54.

Second, Schwinn’s humidification of the circulating gas in the solid phase polymerization vessel (16) falls within the Appellant’s claims only because of the breadth of the claims, not because Schwinn is performing the Appellant’s humidification. If, instead of saying “supplying said purge gas”, the Appellant’s independent claims said “supplying said humidified purge gas” (which is what the Appellant does; Spec. 4:21-24), the Examiner’s argument would not be applicable because regardless of whether all or only part of Schwinn’s circulating gas is dried, the water which the circulating gas picks up in the solid phase polymerization vessel (16) is removed from the circulating gas such that the inlet gas to the solid phase polymerization vessel (16) has a dew point no higher than about 20 °C (col. 8, l. 58 – col. 9, l. 21). When an examiner relies upon a theory of inherency, “the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Int. 1990). The Examiner has not provided a factual basis which supports the Examiner’s inherency argument.

*Conclusion of Law*

The Appellant has indicated reversible error in the Examiner's determination that Schwinn would have rendered prima facie obvious, to one of ordinary skill in the art, a process which makes a filament having a yarn RV of about 51 to about 54.

**DECISION/ORDER**

The rejections under 35 U.S.C. § 103 of claims 1-3, 5 and 7 over Schwinn, and claim 4 over Schwinn in view of either Eberius or Fourné are reversed.

It is ordered that the Examiner's decision is reversed.

**REVERSED**

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